REMARKS

Enclosed are amended drawing Figs. 1-4, with the amendments circled in red on the attached sheets.

The Examiner's careful review of the specification and drawings is appreciated. This application incorporates by reference and claims the benefit of a provisional application. Drawing Figs. 1-4 have been amended to show a mounting flange 22 integrally formed with the base 20, as seen in, for example, pages 12 and 14 of the provisional application on which this application is based. The addition of the flange does not constitute new matter but rather matter which is incorporated by reference in this application and which was not shown in the formal drawings. Additionally, the specification and drawings have been amended to add missing and/or change duplicative reference numerals. The Examiner's approval of the drawing corrections is respectfully requested.

The claims have been amended by this response to overcome the 35 U.S.C. § 112 rejection set forth in the Office Action. By this amendment, therefore, it is submitted that the rejection of the claims and objection to the drawings and specification has been overcome.

In the Office Action, claims 1-18 were rejected under 35 U.S.C. § 103 on the basis of the Baker reference (4,602,176). It is noted in Baker that motor housing 5 is held to the frame plate 23 of the device being driven by means of straps 41 (Fig. 2) which extend through slots 44 and are held thereto by flanges 43, as described in the specification in column 4, lines 27-44. The straps, therefore, provide a connection in addition to the studs 25 which extend through grommets 29 to provide mechanical coupling of the motor to the frame plate 23. The straps thus

provide a transmission path for vibrations between the plate and motor assembly, which is the problem avoided by the structure of the present invention.

In order to more clearly define Applicants' invention, independent claims 1 and 10 have been amended and claims 19 and 20 added. Claims 1 and 10 have been amended to define that a thrust bearing (30 in the drawings) and washer (32) extend between the base and the drive screw for providing the **only** holding connection for the motor assembly to the base. Thus, by coupling the motor through associated drive shaft 26´, as best seen by Figs. 3 and 4, the elastomeric interface, such as grommets 60, 62, and 64 or members 82 and 84 in the embodiment shown in Fig. 4, are slightly compressed to provide an isolation-free coupling between the motor mounting plate 38 and the base 20 of the driven member. The mounting arrangement eliminates, therefore, any additional transmission path for vibration, such as provided by the straps of Baker between the motor housing and the device to be driven. Baker, of course, also has a connection through the motor drive shaft.

Claim 10 has been similarly amended to define this particular connection which eliminates additional paths of transmission of vibration between the motor and the device being driven.

Claim 19 defines a motor mount for isolating vibration between the motor and a driven element, comprising the motor assembly with a drive shaft, a base for supporting the driven element which is coupled to the drive shaft, an elastomeric coupling between the motor assembly and the base, and a thrust bearing engaging the base and driven element to provide the only coupling holding the base and motor assembly together. Claim 20 depends on claim 19 and

defines the elastomeric coupling as including an extension from the motor assembly, at least an aperture in the base aligned with the extension member, and an elastomeric grommet fitted in the aperture for receiving the member. Thus, like claims 1 and 10, claim 19 and claim 20 dependent thereon define a coupling which relies only upon the coupling between the motor and thrust bearing for holding the motor in engagement with the base with an elastomeric material interposed between the motor and base to provide isolation from vibrations. The Baker patent is devoid of any such teaching, nor is there any suggestion to one of ordinary skill in the art in Baker or the remaining references of such structure.

Accordingly, it is submitted that by this Amendment, this application is in condition for allowance, which action is respectfully solicited.

Respectfully submitted,

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APPENDIX A
Version With Markings to Show Changes Made

In the Specification

Page 1, line 14:

Telescopic table legs are commonly used in work places for adjusting the table height for a variety of uses, such as positioning the work surface of a table for standing or various sitting positions. Electrically driven linear actuators are frequently employed to control the height of a table with telescopic legs. Such actuators [~~includes~~] include a reversible motor and drive gear assembly coupled to a power screw which extends concentrically within a telescopic leg assembly and couples to a drive nut for extending or retracting one leg with respect to another. Typically, the motor housing is coupled by threaded fasteners to a cap on the top of the inner leg and, as the motor is actuated, the metal-to-metal connection transmits undesirable motor vibration and resonant frequencies through the linear actuator support structure. This noise and vibration is also transmitted through the support structure and legs of the table. Efforts to reduce such noise and vibration in a work place environment have included providing motor mounting pads which extend from a motor housing to a support plate for the motor, however, it remains necessary to prevent shifting of the motor with respect to the driven member during actuation of the motor and a mechanical interconnection is required to prevent movement of the motor drive assembly about the axis of the drive screw when actuated. Thus, a source of transmission of vibration and noise remains with such a system.

Page 4, lines 12, 13, 23, and 25:

The motor mounting plate 38 includes in a preferred embodiment shown, three equidistant downwardly extending pins 50, 52, and 54 which are axially aligned and spaced from the screw jack end 26´ and extend downwardly, as seen in Figs. 1 and 3, and are received by three equally spaced elastomeric members, such as grommets, 60, 62 and 64 mounted in apertures 70, 72, and 74 formed in surface 23 of base 20 as best seen in Fig. 2. Pins 60, 62, and 64 are preferably tapered at an angle of up to about 10°, as seen in Fig 3, to

readily fit in the apertures of polymeric grommets 60, 62 and 64 for positioning, aligning, and holding the motor mounting plate 38 in alignment with base 20 with the coupling of end 26´ to the gear box 36 securing the motor assembly in a vertical direction, as seen in Fig. 3, with respect to the base 20. Thus, motor 34 is lockably attached to end 26´ of drive screw 26 and its mounting plate 38 is radially fixed with respect to base 22, such that when actuated, the motor torque is transmitted through drive screw 26 and thrust nut [~~16~~] (not shown) and held in position by pins [~~70, 72, and 74~~] 50, 52, and 51 within grommets 60, 62, and 64 against rotation. The commercially available grommets are typically made of a rubber compound to provide isolation of the motor assembly with respect to base 20 and table legs 14 and 16, thereby greatly reducing the transmission of noise and vibration from the motor to the legs. Although rubber grommets are employed in the embodiment shown, other elastomeric sleeves or grommet-like elements could be employed as long as they receive and locate the pins in base 20 and provide acoustical isolation between the pins and the base.

In an alternative embodiment of the invention as seen in Fig. 4, instead of three equidistant (*i.e.*, 120° spacings) pins, the motor 34 and its plate 38 may include a single pin 80 extending through a grommet 82 in base 20 with sides opposite shaft end 26´ including one or more resilient pads 84 extending between the lower surface [~~37~~] 37´ of motor mount 38 and the upper surface 27 of base 20. Pin 80 locates and locks motor 34 from rotation as does drive screw 26, while pad(s) 84 also acoustically isolate motor plate 38 [~~form~~] from base 20 with the remaining mounting of the motor being identical to that seen in Figs. 1-3.

In the Claims

1. (amended) A motor mounting system for a telescopic leg assembly comprising:

a motor assembly including a drive shaft extending therefrom for coupling to a drive screw;

at least one pin extending from said motor assembly in a direction generally parallel to and spaced from said drive shaft; [~~and~~]

a base for coupling to a leg of a telescopic leg, said base including an aperture for receiving a drive screw therethrough and an aperture aligned with said pin of said motor assembly, said aperture including an elastomeric element mounted therein for receiving said pin to isolate vibrations from said motor assembly to said base; and

a thrust bearing and washer extending between said base and said drive screw for providing the only holding connection for said motor assembly to said base.

5. (amended) The motor mounting system of claim 4 [~~where~~] wherein said motor assembly includes three pins and said base includes three apertures with grommets therein.

8. (amended) The motor mounting system of claim 7 wherein said pins are tapered at [~~and~~] an angle of up to about 10°.

10. (amended) A telescopic leg assembly comprising:

first and second legs telescopically coupled to one another and including a drive screw extending within said legs for extending and retracting one leg from the other leg;

a motor assembly including a drive shaft extending therefrom and coupled to said drive screw;

at least one pin extending from said motor assembly in a direction generally parallel to and spaced from said drive shaft; [~~and~~]

a base coupled to said one telescopic leg, said base including an aperture for receiving [~~s~~] said drive screw therethrough and an aperture aligned with said pin of said motor assembly, said aperture including an elastomeric element mounted therein for receiving said pin to isolate vibrations from said motor assembly to said base; and

a thrust bearing and washer extending between said base and said drive screw for providing the only holding connection for said motor assembly to said base.

14. (amended) The motor mounting system of claim 13 [~~where~~] wherein said motor assembly includes three pins and said base includes three apertures with grommets therein.

17. (amended) The motor mounting system of claim 16 wherein said pins are tapered at [~~and~~] an angle of up to about 10°.

19. (new) A motor mount for isolating vibrations between a motor and a driven element comprising:

a motor assembly including a drive shaft;

a base for supporting a driven element coupled to said drive shaft;

an elastomeric coupling between said motor assembly and said base; and

a thrust bearing engaging said base and said driven element to provide the only coupling holding said base and motor assembly together.

20. (new) The motor mount as defined in claim 19 wherein said elastomeric coupling comprises:

at least one member extending from said motor assembly toward said base;

at least one aperture in said base aligned with said member; and

an elastomeric grommet fitted in said aperture for receiving said member.